REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow, are respectfully requested.

Claim 16 has been amended to be directly dependent upon claim 1. Claim 17 has been amended for purpose of clarification. Claims 25 and 26 have been amended to convert them from "process of using" to dependent article of manufacture claims. Claims 1-26 remain pending in this application.

Claim 12 stands rejected under 35 U.S.C. §112, first paragraph, for the reasons given in paragraph (2) of the Office Action. Reconsideration of this rejection is requested for at least the following reasons.

It appears to be the Examiner's position that the specification does not provide an enablement or written description for the subject matter of claim 12. Those are considered separate requirements of the statute. To comply with the written description requirement, the specification must describe the claimed invention in sufficient detail such that those of ordinary skill can reasonably conclude that the inventors had possession of the claimed invention (M.P.E.P. §2163). Since claim 12 is an originally filed claim, there is a strong presumption that an adequate written description has been presented for the embodiment in that claim. The PTO has the initial burden of presenting evidence or reasons why those of ordinary skill would not recognize in the disclosure a written description of the claimed invention (M.P.E.P., §2163).

The Office Action sets forth no reasons or evidence in support of the statement that the specification lacks a written description of the invention of claim 12. Accordingly, this portion of the §112 rejection should be withdrawn.

Applicants note further that the Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. *In re Wright,* 999 F.d 1557, 27 U.S.P.Q.3d 1510 (Fed. Cir. 1993). In fact, a specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement of 35 U.S.C. §112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. See M.P.E.P. §2164.04 and *In re Marzocchi*, 439 F.2d 220, 169 U.S.P.Q. 367 (CCPA 1971).

The first paragraph of 35 U.S.C. §112 merely requires that the specification enable one skilled in the at to make and use the invention without undue experimentation. See In re Borkowski, 164 USPQ 642 (CCPA 1970). A detailed description or working example of every possible embodiment falling within a particular claim simply is not (nor has it ever been) a requirement of the first paragraph of 35 U.S.C. §112. The breadth of the claims is irrelevant so long as they set forth an invention which is described in the specification such that one skilled in the art can make and use the invention. The Examiner should determine what each claim recites and what the subject matter is when the claim is considered as a whole, not when its parts are analyzed individually.

With the above principles in mind, Applicants respectfully submit that the scope of enablement in the present application is commensurate in scope with the rejected claims when considered as a whole. Those skilled in the art would be able to practice the invention in claim 12 given the information in the disclosure coupled with the level of knowledge and skill in the art. The scope of enablement only needs to bear a "reasonable correlation" to the scope of the claims. Thus, in order to sustain a non-enablement rejection under 35 U.S.C. §112, first paragraph, the burden is on the Examiner to provide cogent reasons why those of ordinary skill in the relevant art would not be able to practice the invention defined by the claim based on a review of the specification coupled with the technical knowledge possessed by the routineer in the art. Applicants respectfully submit that the entire specification and the working examples when coupled with the technical knowledge possessed by those of ordinary skill in this art clearly enables those of ordinary skill to practice the presently claimed invention.

For at least the above reasons, the §112, first paragraph, rejection should be reconsidered and withdrawn. If this rejection is repeated, Applicants respectfully request that a reasonable basis be provided in support thereof.

Claims 1, 3, 5-11 and 13 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,616,395 to *Baravian et al.* in view of U.S. Patent No. 6,235,657 to *Schops et al.* and further in view of RE 33,023 (Hiers) for the reasons given in paragraph (4) of the Office Action. Reconsideration and withdrawal of this rejection are respectfully requested for at least the following reasons.

The presently claimed invention is directed to laminates which include at least one non-woven layer of organic synthetic filaments and at least one woven web or scrim of glass fibers pre-consolidated with a binding agent, the non-woven synthetic layer and woven glass fiber web or scrim being bound by needling such that a part of the organic filaments penetrate through the laminate and emerge at the lower surface thereof and lie adjacent thereto. Also, the laminate is subjected to a final consolidation with an acrylate or a styrene binder. The resultant laminate exhibits improved mechanical properties, dimensional stability, resistance to delamination and fire resistance. The patents relied upon by the Examiner in the rejection of claims 1, 3, 5-11 and 13 do not disclose or suggest the laminates of the invention.

A review of the disclosure of *Baravian et al.* '395 clearly indicates that there are at least two distinct features specified in present claim 1 that are not disclosed or contemplated in the laminates of the reference: (1) the laminate of the claimed invention is subjected to a final consolidation with a specific type of binder resin as opposed to the expressed statement in the reference to only consolidate the first (i.e., non-woven synthetic) layer before assembly with the second glass fiber layer (column 6, lines 46-47); and (2) in the laminate of the presently claimed invention, the layers are needled together in such a manner that a part of the filaments in the non-woven synthetic layer penetrate through the lower surface and emerge at the lower surface of the laminate and lie adjacent thereto.

Moreover, while the present claims specify at least one woven web or scrim of glass fibers, *Baravian et al.* '395 describes the glass fiber layer of their laminate as "preferably in the form of a scrim of mineral fibers formed wet or dry, more particularly discontinuous glass fibers with chemical or thermal bonding" (column 3,

line 66 to column 4, line 1) and as "a layer of unidirectional or multidirectional mineral filaments which can be comprised either of continuous mineral filaments, so connected to the unwoven structure that the latter can keep its properties of elongation or deformation upon rupture. There will preferably be used a nonwoven structure formed wet or dry, more particularly discontinuous glass fibers with binder, so as to obtain a high dimensional stability under all conditions of manufacture, ultimate treatment and use" (column 4, lines 17-26). Thus, *Baravian et al.* '395 never refers to their mineral fiber layer as being a woven layer.

Although the reference indicates in column 2, lines 44-47 that the respective layers can be "assembled" by needling or stitch-knitting, this is the only mention of bonding by needling in the disclosure of *Baravian et al.* '395. The entire tenor of the reference is directed toward the only mode contemplated, i.e., adhesive bonding of the layers. This conclusion is consistent with the embodiments described in the working examples and the claims. There is absolutely no disclosure therein of any needling technique to bond the layers, let alone the needling technique specified in the present claims.

The Office Action acknowledges that *Baravian et al.* '395 does not disclose final consolidation with a binder but relies on *Schops et al.* '657 to supply this deficiency. Applicants submit that the use of a final consolidation binder in the laminates of *Baravian et al.* '395 would be contrary to the express teachings of the reference which clearly indicates that only the non-woven synthetic layer should be pre-consolidated; note column 6, lines 46-47. To do otherwise would render the laminates of *Baravian et al.* unfit for the intended purpose.

Moreover, the laminates described in *Schops et al.* '657 require three layers as opposed to the two-layered laminates of *Baravian et al.* '395. According to the latter, three-layered laminates are unsatisfactory for their purpose because the fire-screen (i.e., glass fiber layer) is between the synthetic fiber layers whereas it should be a surface layer (column 3, lines 9-15 of *Baravian et al.* '395). Those of ordinary skill would not seek to modify the invention of *Baravian et al.* '395 as suggested in the Office Action because to do so would render patentees' invention inoperative for this purpose. As stated in Section 2143.02, M.P.E.P.: "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification" (page 2100-127, Rev. 1 Feb. 2003).

Baravian et al. '395 indicates quite clearly that only the synthetic fiber layer should be consolidated. No motivation exists for a final consolidation with binder resin since to do so would be contrary to the disclosure of the reference and likely to adversely affect the laminate properties desired by patentees, i.e., an uncoated outer layer of glass fibers. Thus, there would be no reasonable expectation that the use of an additional layer of synthetic fibers and a final consolidation with binder resin would be successful in providing improved properties without adversely affecting the characteristic desired by the patentees.

Finally, *Schops et al.* '647 does not disclose needling the layers such that a part of the synthetic filaments pass through the laminate and emerge at the lower surface of the laminate and lie adjacent thereto.

Hiers '023 is relied upon in the Office Action as disclosing a laminate having a glass fiber layer and an organic fiber layer needled together such that needle

penetration occurs through all layers to integrally bond the respective layers. According to the Examiner, it would have been obvious "to needle the layers in the invention of *Baravian et al.*, and *Schops et al.*, such that the resulting layers are substantially non-detachable from each other and form an integral composite fabric as taught by Hiers" (page 5, second paragraph of the Action).

Since *Baravian et al.* '395 expressly teaches away from end consolidating the laminates disclosed therein as discussed above, there would have been no motivation to needle together the two layers in the manner proposed in the Office Action. Also, *Hiers* '023 does not disclose or suggest needling such that a part of the synthetic filaments pass through the laminate, emerge from the lower surface and lie adjacent thereto as specified in the present claims.

The organic filaments which penetrate the lower surface and lie adjacent thereto act to "interlock" or anchor the layers of the laminate. The filaments also serve to anchor the binders used in the final consolidation to the laminate. This feature is not disclosed or suggested in the *Hiers* '023 reference relied upon in the rejection.

For at least the above reasons, the §103(a) rejection based on *Baravian et al.* '395 in view o *Schops et al.* '657 and further in view of *Hiers* '023 should be withdrawn. Such action is respectfully requested.

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Baravian et al.* '395 in view of *Schops et al.* '657 and in view of *Hiers* '023 as applied to claim 1 above and further in view of U.S. Patent No. 5,171,629 to *Heidel et al.* for the reasons given in paragraph (5) of the Office Action. Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Baravian et al.* '395 in view of *Schops*

et al. '657 and in view of *Hiers* '023 as applied to claim 11 above and further in view of *Binnersley et al.*, U.S. Patent No. 4,816,327, for the reason set forth in paragraph (6) of the Office Action. Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Baravian et al.* '395 in view of *Schops et al.* '657 and in view of *Hiers* '023 as applied to claim 1 above and further in view of U.S. Patent No. 5,571,596 to *Johnson* for the reasons set forth in paragraph (7) of the Office Action. Reconsideration and withdrawal of these rejections are requested for at least the following reasons.

Heidel '629, *Binnersley* '327 and *Johnson* '596 have been applied because they allegedly disclose the features of dependent claims 2, 14 and 15. The disclosures of these patents do not supply the deficiencies of the §103 rejection based on the combination of *Baravian et al.* '395, *Schops et al.* '657 and *Hiers* '023 for the reasons enumerated above. Accordingly, the various §103 rejections which rely on *Heidel et al.* '629 or *Binnersley* '327 or *Johnson* '596 do not establish a *prima facie* case of obviousness and these rejections should be withdrawn. Such action is respectfully requested.

Applicants acknowledge with appreciation the indication that claims 4 and 13 are drawn to patentable subject matter. However, Applicants disagree with the Examiner's interpretation of the scope of claim 4. The specification indicates quite clearly that the synthetic fibers may be pre-consolidated after formation of the non-woven layer. In this connection, note page 5, lines 6-7 and page 6, lines 1-3.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the

Examiner is invited to telephone the undersigned at (703) 838-6683 at her earliest convenience.

Respectfully submitted,

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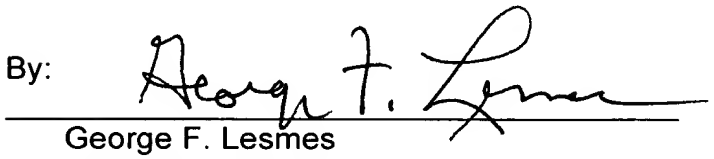
By: 

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